WHAT IS CLAIMED IS:

1　1.　　　A disk apparatus for reading and writing data to a storage
2　medium, wherein:

3　　　　　said disk apparatus comprises:

4　　　　　a storage means for storing pieces of defective track
5　information into areas at respective addresses each corresponding to
6　physical track number information, with each piece of the defective
7　track information indicating existence of defective tracks in a plurality
8　of tracks, and for storing pieces of defect information in predetermined
9　groups, with each piece of the defect information indicating
10　information on a defective track in said plurality of tracks; and

11　　　　　a processing means for receiving an instruction of read or write
12　to a track of said storage medium, for referring to said storage means,
13　and for performing defect processing on a defective track;
14　and

15　　　　　said storage means stores pieces of pointer information for
16　groups of said pieces of defective track information, with each piece of
17　the pointer information indicating a start address of an storage area for
18　each of said predetermined groups; and

19　　　　　when said processing means receives an instruction of read or
20　write to a track of said storage medium, said processing means refers
21　to a piece of said defective track information based on said addresses,
22　and then, when existence of a defective track is indicated, refers to a
23　piece of pointer information for a group to which said piece of the
24　defective track information belongs, accesses the pieces of defect

25 information on defective tracks sequentially from a storage area

26 indicated by said piece of pointer information, detects defect

27 information when the track as an object of said instruction is a

28 defective track, and performs defect processing on said defective track

29 based on said defect information.

1 2.　　　　The disk apparatus according to Claim 1, wherein:

2 　　　　said storage means stores, as said each piece of defect

3 information, physical track number information on said defective track,

4 information indicating a method of the defect processing, and a storage

5 capacity of said piece of defect information or an end location of a

6 storage area for said piece of defect information.

1 3.　　　　The disk apparatus according to Claim 1, wherein:

2 　　　　said disk apparatus further comprises a holding means for

3 holding a number of said plurality of tracks corresponding to one piece

4 of defective track information; and

5 　　　　said number held by said holding means is set from an outside

6 of the holding means.

1 4.　　　　The disk apparatus according to Claim 1, wherein:

2 　　　　said processing means accesses a storage area for said defective

3 track information, according to an address obtained by adding a

4 predetermined base address to an address corresponding to said

5 physical track number information.

1 5.　　　　A disk apparatus for reading and writing data to a storage

2 medium, wherein:

3　　　　　said disk apparatus comprises:

4　　　　　a storage means that has an area in which pieces of physical

5　track number information on defective tracks are stored into areas at

6　respective addresses corresponding to said pieces of physical track

7　number information, and an area in which pieces of defect information

8　on said defective tracks are stored; and

9　　　　　a processing means for receiving an instruction of read or write

10　to a track of said storage medium, for referring to said storage means,

11　and for performing defect processing on a defective track;

12　and

13　　　　　said storage means stores said pieces of physical track number

14　information on defective tracks and pieces of pointer information

15　indicating addresses of areas at which pieces of defect information on

16　said pieces of defective track are stored; and

17　　　　　when said processing means receives an instruction of read or

18　write to a track of said storage medium, said processing means refers

19　to a piece of said physical track number information on defective

20　tracks based on said addresses, and then, when said track as an object

21　of said instruction is a defective track, refers to a piece of said pointer

22　information, detects a piece of the defect information at a storage area

23　indicated by said piece of the pointer information, and performs defect

24　processing on said defective track based on said piece of the defect

25　information.

1　6.　　　The disk apparatus according to Claim 5, wherein:

2　　　　　said storage means partitions a storage area into partition areas

3　each corresponding to a plurality of tracks, and further stores pieces of

4　identification information on said partition areas; and

5　　　　said processing means accesses each of said partition areas
6　each corresponding to a plurality of tracks.

1　7.　　　A disk apparatus for reading and writing data to a storage
2　medium, wherein:

3　　　　said disk apparatus comprises:

4　　　　a storage means for storing pieces of physical track number
5　information on defective tracks and pieces of defect information on
6　said defective tracks into areas at respective addresses corresponding
7　to said pieces of physical track number information; and

8　　　　a processing means for receiving an instruction of read or write
9　to a track of said storage medium, for referring to said storage means,
10　and for performing defect processing on a defective track;
11　and

12　　　　when said processing means receives an instruction of read or
13　write to a track of said storage means, said processing means refers to
14　a piece of said physical track number information on defective tracks
15　based on said addresses to detect a piece of the defect information, and
16　then, when said track as an object of said instruction is a defective
17　track, performs defect processing on said defective track based on said
18　piece of the defect information.

1　8.　　　The disk apparatus according to Claim 7, wherein:

2　　　　said storage means stores a volume of each piece of said defect
3　information, before and after said each piece of the defect information;
4　and

5　　　　said processing means sequentially accesses said pieces of
6　defect information forward and backward.

1　9.　　　The disk apparatus according to Claim 1, wherein:

2　　　　said defect processing performs at least either of skipping

3　processing, in which a defective sector is replaced by a normal sector,

4　and slipping processing, in which a defective sector is replaced by a

5　normal sector that physically follows said defective sector.

1　10.　　　The disk apparatus according to Claim 5, wherein:

2　　　　said defect processing performs at least either of skipping

3　processing, in which a defective sector is replaced by a normal sector,

4　and slipping processing, in which a defective sector is replaced by a

5　normal sector that physically follows said defective sector.

1　11.　　　The disk apparatus according to Claim 7, wherein:

2　　　　said defect processing performs at least either of skipping

3　processing, in which a defective sector is replaced by a normal sector,

4　and slipping processing, in which a defective sector is replaced by a

5　normal sector that physically follows said defective sector.